SUBJECT INDEX

Achievement motivation, high school, models 43–57
Achievement Objective Test 92, 96
Adult–child interaction, internalization 101–118
Algebra, graphic representation 303–319

CARLA, self-regulation in learning from instructional text 290, 291, 294, 298
Cognitive apprenticeship 323, 340
Cognitive conflict 200, 216, 219, 221, 236, 260
Cognitive factors, group problem solving 186
Cognitive growth, social processes 216
Cognitive interactions 156
Cognitive training programs, impulsive students 89–100
Collaborative behavior 221
Comprehension
  gist 78
  reading 70
Computer-assisted instruction
  creative problem solving 263
  self-regulation 323, 324
  WP-DAGOGUE 328
Computer-assisted learning 156
Computer-assisted video-reconstruction, self-regulatory learning behavior 290, 294
Computer-based activities, teachers' interventions 339–355
Computer-based instruction in writing 217, 226, 234
Computers, cooperative learning 155–159, 275–280, 349
  creativity and social relationships 259–274
  gender pairings 199–213
  interdependence and autonomy 239–257
  more local theories 281
  physics 161–183
  problem solving in primary school 185–197, 199–213
  social cognitive behaviours 215–238
Computer-Supported Intentional Learning Environments 128
Computer supported physics teaching, group interaction 161–183
Concept maps 129
Concept of self 61
Conceptual knowledge, group interaction in physics teaching 161
Concurrent instructional shell, WP-DAGOGUE 324
Condensing 74, 81
Cooperative learning with computers 155–159, 275–280, 349
  creativity and social relationships 259–274
  gender pairings 199–213
  interdependence and autonomy 239–257
  more local theories 281
  physics 161–183
  problem solving in primary school 185–197, 199–213
  regulation training 325
  social-cognitive behaviors 215–238
Creativity, cooperative Logo environments 259–274
Covington and Omelich model of achievement motivation 44
Culture, internalization 102

Degree examinations, understanding in revising 1–22
Depth of Processing Test 144, 147
Direct instruction, reading 70
Disabled learners, transfer training 85, 86
Drawing/writing 38
Dweck and Elliot's model of achievement motivation 43, 56

Elaborated HyperComments 132
Examinations
  achievement motivation 45
  understanding in revising 1–22
Expectations and performance 51
Expressions transformations, graphic representation in algebra 303

Failure 45, 46, 47, 51, 52, 55
Fear of failure 47, 53

Gender, interaction and performance on computer-based problem solving task 199–213, 254
Gist comprehension 78, 79, 82, 84

Gist learning 78, 79, 83, 85
Goal-adaptive self-regulation 288
Good Strategy User model, self-regulation 288, 290
Graphic representation, algebra 303–319
Grapho-phonological conception of writing 27
Group interaction
  cognitive benefits 186
  computer-supported physics teaching 161–183
  interdependence and autonomy 239–257
  microcomputer-based problem solving, primary school 185–197
Group Investigation 156
Guided-Logo 263, 266, 271
Guided practice 71

Helplessness 45, 47, 51
Higher education, understanding in revising for examinations 1–22
Higher-order thinking, social-cognitive behaviors in computer environments 215, 229, 235
Homes task 243, 244
Homunculi 226
HyperComments 134
Hypermedia, learning programming 119–139
  Elaborated HyperComments 132
  HyperComments 134
  Lisp Perspective Library 128
  Lisp Template Library 127
  Pascal Template Library 124

Implicit memory 143
Important messages, identification 74, 75, 81
Impulsivity-related achievement problems, cognitive training programs 89–100
Incidental learning, verbal ability 141–153
Individualism 340
Informed training 323
Initial Assessment Test 93, 97
Instructional text, self-regulation in learning from 288
Intelligence, incidental learning and verbal ability 141–153
Interaction and internalization 101–118
Internalization, adult–child interaction 101–118
Intersubjectivity 104
Inventory of Learning Processing 150
IRAT 265, 270

Jigsaw 155

KANE 126
Kinematic principles, group interaction in computer-supported teaching 161–183
Knowledge, metacognitive 64

Learning
  approaches to 2, 13
  conceptions 2
  intelligence 141
  understanding 1–22
Learning-Together 155
Letters task 242
Lisp 123, 126, 134, 136
Lisp Perspective Library 128
Lisp Template Library 127
LOGO 126, 157, 210, 342
  groupwork 242, 259–274
  social-cognitive behaviours 217, 225, 234
  teachers' intervention 344

MAPE-II 48
Matching Familiar Figures test 89, 92
Mathematics, groupwork with computers 239, 243
Memory 16
Metacognition
  reflection-impulsivity 90
  self-reflection 64
  self-regulation 288
Metacognitive training, reading skills 70, 72
Metacomponential processing 224, 226, 229, 262
Microcomputers, group problem solving 185–197
Milliken's Writing Workshop 226
Model and Guide 76
Motivation 46, 52
  achievement, models 43–57
  self-regulation 291
Multiple representation of functions 307, 317

National Curriculum, microcomputer-based group problem solving 185
Neo-Vygotskian perspective 340, 352

Paintspa 345
Parent–child interaction 103, 108
Pascal Template Library 124, 137
Peer facilitation 240, 254
Peer interactions, computer environments 157, 217, 234, 275
Perspectives, Lisp 128
Phenomenographic analysis of psychological concepts 62
Physics, group interaction in computer-supported teaching 161–183
Primary schools, microcomputer-based group problem solving 185–197
Prior knowledge, activation and utilization 74, 81
Problem solving
  cooperative Logo environments 259–274, 266, 271
  groups 185, 261
  interaction, gender and performance 199–213
Problem-solving training 91, 93, 95
Programming, hypermedia tools 119–139
Pseudocode 120

Pupil-managed groups 254
Pupil–teachers, groupwork 254
Puzzle construction task 105, 115

Reading
  CARLA 294
  effect of thinking aloud 69–88
Reciprocal sense-making 216
Reciprocal teaching 66
Recycling, programming 121, 136
Reference, adult–child interaction 104
Reflection 59–68
  metacognition 63
  self 62
  training 65
Reflection-impulsivity 89
Regulation learning 324, 334
Revising for examinations, understanding 1–22

Scaffolding 71, 323, 334, 335, 342, 347, 351, 352
  hypermedia 120, 137
Scheme 126
Self-consciousness 61
Self-instruction 91, 93, 95
Self-reflection 59, 61, 62
Self-regulation 115
  learning from instructional text 287–301
  training programs 322, 323, 334
Self-worth theory 56
Semantic interpretation, graphic representation in algebra 304, 312
Situated learning 340
SLANT 343, 344
Social-cognitive behaviours
  computer environments 215–238
  cooperative learning 282
Social relationships, cooperative Logo environments 259–274
SOLVE 263, 266, 271
Spokes task 243
STAIRWAY 226
Strategies, self-regulation 288
Student Teams Achievement Division 155
Syntactic manipulation, graphic representation in algebra 303, 312

Talk for learning 343
Talk, group performance 186, 191, 193
Task relevant concurrent verbalization 186
Teachers role in computer environments 278, 339–355
Teaching-and-learning 345, 352
Teaching, understanding in revising 17
Team Games Tournament 155
Templates, programming instruction 120, 136
  Lisp 127
  Pascal 124
Text-processing strategies 73, 75, 77, 79, 80, 84
Thinking aloud, development of reading skills 71–88
Torrance Test of Creative Thinking 265
Training of reflective skills 65
Transfer of training 69, 77, 82, 84
Transfer Task 191, 194
TRANSFORMER 306–312

Understanding, revising for degree examinations 1–22
  concept 3
  developing 10
  forms of 12, 20
  influences of teaching 17
  nature of 7, 18

Verbal ability, incidental learning 141–153
Verbal interaction
  computer-based problem solving 186, 191, 193, 204, 207, 278
  social cognitive behaviors 231
Vocabulary tests 145
Vygotsky, L. S. 102, 340

Wechsler Adult Intelligence Scale 145
Weiner's model of achievement motivation 43
Wertsch, J. V. 102
WordPerfect, WP-DAGOGUE 328
Word processor, learning to use 324–336
Word recognition 24
WP-DAGOGUE 324, 327, 336
Writing
  computer-based instruction 217, 226, 234
  in preliterate children 23–41

Zone of proximal development 341, 349, 353
  Logo environments 260